

Work Order ID 72226

Wednesday, July 20, 2011 8:59:56 AM



Page 1

Item ID: D6101-003

Accept



Setup Start



Revision ID:

Stop



Item Name: Saddle Billet, 7075

Start Date: 7/20/2011 Start Qty: 40.00



Cust Item ID:

Required Date: 8/3/2011 Req'd Qty: 40.00

Customer:

Reference:

Run Start



Approvals: Process Plan: CL Date: 11/07/20

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D6101

Rev B

100

0.00



PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O:

14554

a) Description: Aluminum billet

b) 7.875" x 6.250" x 2.00" thick

c) Tolerance on all dimensions are +0.030"/-0.000"

d) Grain direction along 7.875" length

e) Material: 7075-T7351 (QQ-A-250/12)

f) Material certification required

CL 11/07/21 (40)

110

0.00



Receive & Inspect for Damage & Mat'l Certs

Packaging

Memo

0.00

Packaging

Ensure material certification is attached

11/8/21 (21)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 72226

Wednesday, July 20, 2011 8:59:56 AM



Page 2

Item ID: D6101-003	Accept		Setup Start	
Revision ID:			Stop	
Item Name: Saddle Billet, 7075				
Start Date: 7/20/2011	Start Qty: 40.00		Cust Item ID:	
Required Date: 8/3/2011	Req'd Qty: 40.00		Customer:	
Reference:				

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run Start	
	QC:	Date:	SPC (Y/N):	Date:	Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 QC Quality Control	QC6- Inspect dimensions to drawing Memo Ensure Material certification comply to Dwg D6101	0.00 0.00		11/08/02		21	0		
130 Packaging Packaging	Identify as per dwg & Stock Location: MAT 44 Memo	0.00 0.00		11/08/02		21	0		
140 QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00		11/08/03					

11-08-3
(20)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, July 20, 2011 8:59:54 AM

Page 1

Work Order ID: 72226

Parent Item: D6101-003

Parent Item Name: Saddle Billet, 7075



Start Date: 7/20/2011

Required Date: 8/3/2011

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP A: ☐01.05.04 ☐New Issue ☐EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-003P 7075-T7351 2X6.25X7.875		Purchased	No			110	Each	0.0000	1 	40		<i>P 11/8/2</i> (20)	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

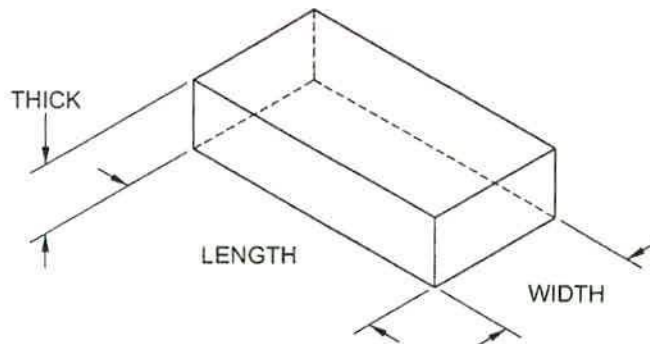
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/W

CZ11/07/20
W10:72226

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO14554

Purchase Order Date 7/21/2011
PO Print Date 7/21/2011

Page Number 2 of 3

Order From : VC-MET001
METAUX CASTLE
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100
TORONTO, ON M4Y 3A5
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	514 694 9575	Requisition Nbr	
Vendor Fax	514 695 3281	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

Special Inst: MATERIAL: AISI 303 SS BAR AS PER
ASTM A582
NOTE: 304/316 NOT ACCEPTABLE

D6101-001P	7075-T7351 2X6X6.25	7/26/2011 Yes	20.00 Each	Yours ppd <i>[Signature]</i>	\$45.1000	\$902.00
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D6101-001P	7075-T7351 2X6X6.25	8/5/2011 Yes	20.00 Each	Yours ppd	\$45.1000	\$902.00
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Special Inst: AS PER DWG D6101 REV. B
B72225
MATERIAL: 7075-T7351 AS PER QQ-A-
250/12
SIZE: 6.00" X 6.250" X 2.00" THICK
GRAIN DIRECTION ALONG 6.00"
LENGTH
TOLERANCE ON LENGTH ARE +0.030" / -
0.000"

4	D6101-003P	7075-T7351 2X6.25X7.875	8/5/2011 Yes	40.00 Each	Yours ppd <i>[Signature]</i>	\$56.1600	\$2,246.40
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Special Inst: MATERIAL & TOLERANCE SAME AS
ABOVE
B72226
SIZE: 7.875" X 6.250" X 2.00" THICK
GRAIN DIRECTION ALONG 7.875"
LENGTH

5	D6101-005P	7075-T7351 8.25X5.0X2.5	7/26/2011 Yes	20.00 Each	Yours ppd <i>[Signature]</i>	\$61.0000	\$1,220.00
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No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

Change Date: 7/21/2011

Change Nbr: 1

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP

Page 1 of 1

Shipment No:914335

Ship From: A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 29-JUL-2011	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN		BOL No 914335-2	

Shipment Details	Final Destination Branch - MON
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Order No 1567236	Line No 1	Item No 752237.MO	Description 2.0000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) X 7.875 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12				
Purchase Order No PER RELEASE 14554		Part Number YOUR ITEM NUMBER: D6101-003		Ordered Qty 20 PCS		Invoice Qty 20 PCS	
Details		DO NOT SHIP - HOLD FOR RELEASE					
Delivery No. 87235342	Mill	Heat Number 589281	Mech Id	PCS 20	Width (IN)	Length (IN)	Shipped Qty(LBS) 203.22

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.	
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.	
Reviewed by Authorized Castle Metals Representative:	Date:

CERTIFIED INSPECTION REPORT

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

Per

Valcolm Murphy

Director of Manufacturing Davenport Works

Kenton P. Young
Quality Assurance Manager

1061390	0			
Ship Date	B.L. No.	Invoice No.	Alcoa No.	Item Page
2009-10-26	4323476	00000	1000138855-3	DS-38855-3
P.O. No./Govt Contract No.	Customer	Alcoa Item		
14585 Ln#: 3	CASTLE METALS	G041003428R14		

Ship To: A M CASTLE & COMPANY
3050 SOUTH HYDRAULIC
WICHITA 67216 KS

Item Description
2.0 IN TH (+.055 - .055) X 48.5 IN W (+.3125 -
0.000) X 144.5 IN LN (+.5 -0.0) CAT D 164164 (N) A/T 7075-
T7351 RECTANGLE MILL FINISH. USI 3MM DEAD ZONE REQ'D BOTH SIDES,
SAWED IAC 6857. EXC_MRK A97075-60 REV 25 AMS-QQ-A-250/12 IS 2007 AMS-
STD-2154 EXC_MRK AMS4078 REV G EXC_MRK ASTM E209
REV 07 ASTM B594 REV 06 BSS7055 REV A
EXC_MRK MMS159 REV N PS21211 REV K (MARKED)
KRAFT PAPER INTERLEAVED
MAX GROSS SKID WGT: 4500 LB QUAN TOL +/-
40 % USI CL A 3 MM CQR 0107687 REV 12 CUST REQ 09-10-
25 *** W/E 09-10-31 ***

Num	Package Ticket	Lot	Weight	Quantity	UOM	Inspector Clock Numbers
1	759932	585281	1423	1	PC	47091
2	759955	585281	1433	1	PC	47091
			2356	2		

Notes for CCR: 0107687.32

PRODUCT PRODUCED TO THE REQUIREMENTS OF MIL-STD-2154 ALSO MEET THE REQUIREMENTS OF AMS-STD-2154 PRODUCT PRODUCED TO THE
REQUIREMENTS OF AMS-STD-2154 ALSO MEET THE REQUIREMENTS OF MIL-STD-2154.
THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMERSION - TYPE I.
THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMERSION - TYPE I.
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/12F. PRODUCT
PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/12 F ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/12.
Exception to Spec A97075-60 ; Revsn: 25 Issue: Letter dated 2008-12-11 from TUCKER, BONNIE to PLATTER, B.

CQR: 0107687.32 -Specification Limits -

Temp	Dir	UTS	TYS	EL4D
		KSI	KSI	PCT
7351	Long Transv.	Max	68.9	
		Min	57.0	6
7351	Elec. Cond. (EC) & MIN	38.0	PCT	

Chemical Composition	SI	FE	CU	MN	MG	CR	ZN	TI	Other Each	Other Total	Aluminum
Alloy 7075	Max	0.40	0.50	2.0	0.30	2.9	0.38	6.1	0.20	0.05	0.15
	Min			1.2		2.1	0.18	5.1			REMAIN

CERTIFIED INSPECTION REPORT

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

Per:

Malcolm Murphy

Director of Manufacturing Davenport Works

Kenton P. Young

Kenton P. Young
Quality Assurance Manager

1061390	0				
Ship Date	B.L. No.	Invoice No.	Alcoa No.	Item	Page 2
2009-10-26	4323476	00000	1000138855-3		DS-38855-3
P.O. No./Govt Contract No.	Customer	Alcoa Item			
14685 Ln#: 3	CASTLE METALS	G041003428R14			

CQR: 0107687.32 -Specification Limits (cont.)

Lot: 589281 - Mechanical, Physical, Metallography, Quantometer Results

Temp	Dir	No->	UTS	TYS	EL4D
		Test	KSI	KSI	PCT
T7251	Long Transv.	3	72	61.3	10.8
			71.9	61.3	11.1
			71.6	61	11

T7251 Elect Cond 41ACS 40.8 40.9 41.0 PCT

Cast Number	Chemical - CES	SI	FE	CU	MN	MG	CR	ZN	TI
H4588024	Actuals	0.06	0.30	1.6	0.02	2.4	0.19	5.7	0.02

This material was melted in the United States or a Qualifying Country [REF DFARS 225.972.1(a)]; it was manufactured in the United States